### 4. *The Federal Era 1965-1995: Despite Moratoriums, Litigation and Increased Pressure from State and Federal Regulators, the County's Failure to Provide Adequate Funding to the System Continues.*

The County Commission finally made an official response to the growing sewer crisis in January 1967, when it announced a ten-year $43 million sewer improvement program. Although federal funds were expected to cover about $13 million of the costs, the Commission did not implement a plan to fund its $30 million share of the program, ultimately losing the federal funds.[55] Later that year, pressure from government regulators began when the Alabama Water Improvement Commission ("AWIC") gave the County six months to come up with a plan to upgrade five treatment plants that were illegally discharging raw sewage into area streams. The County's 1967 plan included upgrades to address this issue, but it would be two more years before the County began efforts to secure funding for the plan.[56]

In March 1971, AWIC issued the first of what would be several federal, state, and local level moratoriums prohibiting new sewer connections throughout the County.[57] These moratoriums were issued periodically throughout the 1970s and remained in place until the mid-1980s.[58] The moratoriums slowed economic development throughout the County, and also resulted in the proliferation of private on-site wastewater systems as developers tried to work around the connection bans. These small on-site developer systems tended to be relatively untested, poorly regulated, not sustainable and drastically more expensive to operate.[59]

The moratoriums worsened one of the longstanding problems with the System. The lack of mandatory hookup enforcement throughout the System's history had already resulted in the construction of thousands of homes and businesses in the County that were not connected to the System, and the moratoriums resulted in still more unconnected development. The continued construction of new homes and businesses that were not connected to the System reduced the size of the customer base available to share in the increasing costs of operating and maintaining the System and protecting the area water supplies. Because the System's costs were spread over a smaller customer base, the potential impact of necessary revenue increases on each customer's rates was much higher than it would have been had the customer base continued to grow with the community, making the needed rate increases even less politically palatable to the County Commission.

In April 1971, the County finally began steps to fund its $43 million 1967 sewer improvement plan by lobbying the state legislature to increase sewer rates, which had remained

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[55] *Id.* at 46-47.
[56] *Id.* at 47.
[57] *Id.* at 47.
[58] In addition to the 1971 county-wide moratorium, AWIC also issued a moratorium in September 1975 for the Shades Valley area. *Id.* at 62. When the AWIC Shades Valley moratorium was lifted, the County instituted its own ban on sewer connections in Shades Valley, which remained in place until 1984. *Id.* at 63. In 1976, the County, under instructions from the EPA, also ordered a moratorium on new connections to lines serving the Cahaba River and Patton Creek plants which remained in place until 1985 and 1987, respectively. *Id.* In June 1977, the County restricted development in Brewster Valley, and in March 1978 issued a moratorium for the Turkey Creek system, which remained in place until 1982. *Id.* at 63-66.
[59] *Id.* at 66.

the same since first imposed in 1951. Despite the fact sewer rates had not been raised in twenty years, and were less than one-third the typical rates paid in other southeastern cities, the state legislature spent months in hotly-contested hearings haggling over potential caps on the County's ability to impose rate increases.[60] The negotiations ended abruptly when the Alabama Supreme Court issued an advisory opinion holding that Amendment 73 gave the County the exclusive authority to fix sewer rates.[61] With this ruling, the County finally had clear legal authority to raise rates to fund the desperately-needed improvements to the System.

Amidst strong public opposition, in early 1972 the County unanimously passed the first sewer rate increase *ever*. Rates set at a level the County estimated was sufficient to finance the $30 million in bonds needed to pay for the improvements identified in the 1967 ten-year plan.[62] The bond issuance, however, was postponed indefinitely due to litigation challenging the legality of both the proposed bonds and the rate increases necessary to repay the bonds. In the meantime, public opposition to the rate increase continued. In August and November, the County Commission bowed to public pressure and passed rate reductions that eventually nearly wiped out the rate increase entirely.[63] Thus, despite finally obtaining the clear legal authority over the System's financing, the County again failed to use its authority to adequately fund the System.

At the same time the County was failing to make the improvements and investment necessary to bring the outdated and overloaded System into compliance with existing minimum treatment requirements, legislators and regulators were actively developing much more stringent minimum treatment standards. In 1972, Congress enacted the CWA,[64] administered by the EPA, ushering in an era of much greater federal scrutiny of wastewater treatment programs.[65] The CWA required all wastewater to receive treatment prior to discharge into navigable waterways (i.e., no more discharges of untreated sewage), set standards for both primary and secondary treatment of wastewater, and authorized penalties for violations of the new requirements.[66] Because improvements to the System had been both insufficient and infrequent, the County was forced to quickly develop a multiyear capital improvement plan to cure the inadequacies of the System and comply with CWA.[67] To finance the costs, the capital improvement plan called for a series of regular rate increases and bond issuances to replace the sporadic, project-based funding and half-measures that had remained the norm since the System was first created in 1901.[68]

Almost immediately after announcing its plan in 1975, the County Commission fell back into its well-established pattern of failing to follow through with its announcements and meet even the most minimum funding requirements of the System. The County did not issue the first $10 million in bonds until 1976, almost a year later, and only had a conditional plan for future bond issuances.[69] None of the planned bond issuances for 1979 through 1981 were

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[60] *Id.* at 47-48.
[61] *Id.* at 48; *Opinion of the Justices,* 251 So. 2d at 759.
[62] PARCA Report at 49.
[63] *Id.* at 50.
[64] 33 U.S.C. §§ 1251 *et seq.*, as amended.
[65] As the PARCA Report notes, prior to enactment of the Clean Water Act, discharge of raw sewage into watercourses was "widespread, and was perfectly legal." PARCA Report at 58.
[66] *Id.*
[67] *Id.* at 61.
[68] *Id.* at 65.
[69] *Id.*

implemented.[70] Although the County tried to make up for the failure to issue bonds as planned by raising rates above planned levels in 1980, it continued to fall behind in funding the System, and moratoriums preventing additional sewer connections remained in place.[71]

In 1981, the County Commission created a blue-ribbon committee to prioritize sewer improvement projects and recommend ways to fund the necessary improvements. After two years of work, this committee developed a priority list of forty-eight projects with a total estimated cost of $157 million.[72] The committee emphasized that its recommendations were not a final solution, but instead represented the bare minimum necessary to meet mandatory wastewater standards. The committee observed that "[f]uture public servants must address the problem of continued expansion and technical progress" of the System.[73] Despite these warnings, the County Commission ultimately only issued about 60% of the bonds the committee recommended. Though the committee assured the County that the rate increases would leave rates very low when compared to other similar communities, the County only raised rates to half the level recommended by the committee.[74]

The County began to address the deficit in System funding in the early 1990's when the Commission began enacting multi-year sewer rate increases for the first time,. It was 1995 before these multi-year rate increases reached the levels recommended in the 1983 blue-ribbon commission report.[75]

Unfortunately, just as the County was beginning to make some headway towards eliminating the serious deficit in the funding required for the System to meet minimum standards, state regulatory requirements became much more stringent, particularly in regard to secondary treatment requirements and bans on bypassing treatment during periods of high wastewater flow volumes.[76] In 1993, the System's long-existing environmental problems began to reach a crescendo. The successor to AWIC, the Alabama Department of Environmental Management ("ADEM"), ordered the County to implement a $416 million improvement plan and issued a moratorium on new connections to the Leeds treatment plant because of excessive pollutants discharged from that facility into the Little Cahaba River.[77] Later that same year, the EPA required the County to account for all unpermitted discharges of pollutants from its wastewater treatment plants since 1988.[78]

In November 1993, a lawsuit was filed[79] alleging that the County was discharging pollutants into the Cahaba and Black Warrior Rivers without the required permits and that the County's wastewater treatment plants were violating the terms of their permits.[80] The Cahaba

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[70] *Id.*
[71] *Id.*
[72] *Id.* at 66.
[73] *Id.* (quoting committee report).
[74] *Id.* at 66-67.
[75] *Id.* at 68.
[76] *Id.*
[77] *Id.* at 69-71.
[78] *Id.*
[79] *Kipp, et al. v. Jefferson County, Alabama, et al.*, United States District Court for the Northern District of Alabama, Civil Action No. 93-G-2492-S.
[80] PARCA Report at 71.

River Society intervened in that lawsuit, which was consolidated with a similar lawsuit filed by the EPA[81] in 1994. In January 1995, the judge ruled for the plaintiffs, finding that the County had made illegal discharges exceeding permit levels on a number of occasions.[82] The judge ordered the parties to present a plan to remedy the sewage overflow problem. The County agreed to entry of a consent decree (the "Consent Decree") in December 1996 requiring it to take a broad range of remedial measures. Included within the Consent Decree was a provision giving the County authority to assume responsibility for municipal sewer lines that feed into the County's system, thus ending the divided responsibility identified as a crucial barrier to the System's success almost a century earlier. A copy of the Consent Decree is included in the Appendix at A-6.

### C. The Consent Decree.

Pursuant to the Consent Decree, the County assumed control of and responsibility for twenty-one separate municipal sewer systems previously owned and maintained by various municipalities throughout Jefferson County. At that time, the County was unaware of the exact condition and extent of these municipal systems; however, the County did not receive any compensation from any of these municipalities for any of the remediation efforts required under the Consent Decree.[83] The County assumed ownership of and responsibility for approximately 11,500,000 feet (2,178 miles) of sewers, an amount twice the size of the County system, with no significant due diligence or compensation.[84] In fact, the municipalities had largely never invested in any sort of comprehensive maintenance program for their sewers, and the County had little, if any, knowledge of the condition of the former municipal sewers. However, in the Consent Decree, the County committed itself to make whatever improvements were necessary to meet a set of near-impossible goals that even the best systems in the country cannot continuously achieve. These commitments included, among other things, the promise to improve and expand the System in order to:

- Completely eliminate further bypasses and unpermitted discharges of untreated wastewater containing raw sewage to the Black Warrior and Cahaba River Basins;
- Completely eliminate sewer system overflows;
- Achieve full compliance with the County's National Pollutant Discharge Elimination System ("NPDES") permits; and
- Achieve full compliance with the CWA by minimizing the discharge of pollutants into navigable waters, maintaining a high level of water quality, and preserving marine and other wildlife.[85]

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[81] *United States v. Jefferson County, Alabama, et al.*, United States District Court for the Northern District of Alabama, Civil Action No. 94-G-2947-S.
[82] PARCA Report at 71.
[83] Federal Action, Parties' Joint Submission Pursuant to October 7, 2008 Order, Doc. # 32 at 3, ¶ 20 (Nov. 11, 2008) (herein, the "Federal Joint Submission").
[84] BE&K Report at 7-2. The BE&K Report is discussed in more detail in Section II.C.1 *infra.*
[85] Consent Decree at 12, 19-101.

The County also agreed to pay the United States $750,000 for its prior violations of the CWA, spend $30 million on supplemental environmental projects, and pay numerous stipulated penalties in the event it failed to comply with the Consent Decree in the future.[86] As of this date, five of the County's nine sewer basins are still subject to the Consent Decree.

The Consent Decree was approved and executed by both the County and the State of Alabama (represented by the Attorney General). The State was a party to the Consent Decree litigation, and under federal law may be held liable for violations of the Consent Decree if state law prevents the County "from raising revenues needed to comply with such judgment."[87]

### *1. Construction to Comply with the Consent Decree.*

In order to comply with the Consent Decree, the County began rehabilitation and improvement of the System pursuant to the Jefferson County Sewer Improvement Program, It rehabilitated approximately 657 miles of sewer mains and completely replaced another eighty miles of sewer lines from 1996-2008.[88] The equivalent of more than 20,000 manholes were rehabilitated or replaced during that timeframe.[89] Although the lack of budgeting, planning, and recordkeeping makes it difficult to determine precisely where all the money went, the best estimates of the total expenditures aimed at complying with the Consent Decree, CWA, and NPDES permits, and related to system expansion, range from approximately $2.3 billion to $2.5 billion. In addition, the System has approximately $240 million in funds, representing proceeds fro warrants, available primarily for construction purposes, in various reserve accounts.[90]

While the EPA set the compliance objectives the County was required to meet, the County was responsible for creating a plan to meet those compliance objectives.[91] The capital improvement program the County created to comply with the Consent Decree suffered from significant design flaws and was poorly implemented, leading to both substantial and wasteful cost overruns and a failure to eliminate all problems related to sewer system overflows.[92] These flaws are examined in detail in a 2003 report the County commissioned from BE&K Engineering Company (the "BE&K Report").[93] A copy of the BE&K Report is included in the Appendix at A-7. Among the problems identified by BE&K:

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[86] *Id.* at 102-114. The County has paid approximately $577,000 in stipulated penalties to date.
[87] Consent Decree at 6.
[88] Special Masters Report at 22.
[89] *Id.*
[90] By the County's own estimation the cost to complete the repairs and rehabilitation necessary to comply with the Consent Decree had grown from an initial estimate of between $250 million and $1.2 billion in 1996 to $3.05 billion in 2003. BE&K Report at 2-2.
[91] *Id.* at 7-4.
[92] A sanitary sewer system overflow, or SSO, occurs when the flow of wastewater exceeds the capacity of the sewer system and untreated sewage bypassing the treatment process is released directly into local waterways.
[93] BE&K was assisted in the preparation of its report by CH2M Hill, Porter, White & Company, and PARCA.

- ESD's approach to evaluating and controlling Sanitary Sewer Overflows (SSOs) was too heavily influenced by ESD practices and local engineers, and was grounded in field data collection and analysis instead of newer, more effective approaches being successfully applied in the wastewater industry;[94]

- ESD did not incorporate the available technical and business organizational tools and methods necessary to manage a project of the magnitude imposed by the Consent Decree;[95]

- ESD did not properly take into account how dealing with the twenty-one municipal systems it was absorbing would impact the conveyance system flows;[96]

- There was no overall design standard created to guide facility designs;[97]

- The County never established an asset management process that would allow management to properly prioritize and budget for needed repairs;[98]

- Some of the wastewater treatment plants were designed to treat peak flows without storage, even though peak flow storage facilities were also added at these plants, which both wasted capital and presented additional operation problems;[99]

- Many of the plants were designed to use disinfection systems that were more expensive than other, less expensive systems that offered operational advantages;[100]

- Most projects in the compliance program were not budgeted and ESD did not issue cost reports, eliminating any ability to forecast budget overruns or any sense of budget discipline – ESD management indicated to BE&K that they did not operate on a budget;[101]

- There was no attempt to schedule projects to ensure that they were executed as originally planned – as a consequence, most projects were delayed;[102]

- ESD did not utilize any sort of value engineering process to identify cost savings in the structure of its compliance program;[103]

- ESD focused on complying with the mandates of the Consent Decree without adequate strategic planning or action; and[104]

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[94] *Id.* at 7-5
[95] *Id.*
[96] *Id.* at 7-6
[97] *Id.*
[98] *Id.* at 7-7.
[99] *Id.* at 7-8 through 7-10.
[100] *Id.* at 7-9
[101] *Id.* at 3-2, 3-5
[102] *Id.* at 3-3.
[103] *Id.* at Chapter 4.

- ESD made spending decisions without any meaningful budgets or controls.[105]

In 2003, BE&K estimated $365 million in additional financing was needed to complete the projects necessary to comply with the Consent Decree, and an additional $246 million would be needed to repair known defects in the System following termination of the Consent Decree.[106]

In addition, BE&K noted the County's capital improvement plan addressed the sewer system overflow problems by essentially over-building the System's treatment capacity, while at the same time neglecting to examine or address the collection system causes of the overflows. Infiltration and inflow are two potential causes of sewer system overflows. Infiltration is groundwater that enters the sewer system through cracks or leaks in the collection pipes; inflow is storm water that enters the collection system at direct points of connection, such as through illegal connections of sump pumps or drains to the sanitary sewer system. Infiltration and inflow cause hydraulic overloading of the sewer collection system which is designed only to handle lower routine volumes of wastewater flows, and place an extreme burden on wastewater treatment facilities and processes.[107]

Because inflow and infiltration enter the system differently, they must be addressed differently. Inflow is easier to locate and costs less to remove, and because inflow typically involves higher volumes, it typically contributes more to overflows than infiltration. The County did no sophisticated hydraulic modeling to determine how infiltration and inflow volumes would impact the System, and the County's improvement plan to comply with the Consent Decree lumped both infiltration and inflow together, preventing the County from receiving the reduced costs and higher benefits that would have resulted from examining the cost-effectiveness of multiple inflow and infiltration reduction alternatives.[108] The System continues to have significant problems with infiltration and inflow, resulting in continued challenges to System operations.

### *2. System Financing to Comply with the Consent Decree.*

In 1997, the County began borrowing vast sums of money in order to finance the improvements needed to comply with the Consent Decree.[109] The debt issued by the System increased by more than 1000 percent in the eight years between 1995 and 2003.[110] As BE&K pointed out, this increased debt radically changed the capital requirements of the System and meant that, "sewer rates, assuming no additional debt restructuring and refundings, must increase at rates well above inflation."[111] "The County's sewer financing structure reflects a desire to

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[104] *Id.* at Chapter 5.
[105] *Id.* at 12-2.
[106] *Id.* at 2-13. The Receiver has since determined that due to additional problems discovered in the operation of the System since appointment, these 2003 estimates are too low. *See* discussion at Section III.B *infra.*
[107] Infiltration of the municipal sewer collection lines within Jefferson County was identified as a problem as early as 1912. *See* discussion at Section II.B.1 *supra.*
[108] BE&K Report at 7-6 and 7-7.
[109] As BE&K pointed out, the "capital investment has not expanded the customer base materially; therefore, existing customers bear the cost of these expenditures." *Id.* at 12-1.
[110] *Id.*
[111] *Id.*

finance a very large capital program while delaying rate increases as long as possible."[112] The County borrowed these monies with:

> no realistic long-range financial plan, no determination of how much capital expenditure the County could afford to finance, how much burden the ratepayers could afford to assume, and no attempt to contain the amount of the capital expenditures or debt within the limits of what the County and the users can afford.[113]

All of the County's financing structures were extremely back-loaded; in exchange for lower debt service payments in the early years, the structures called for extremely large debt service requirements in later years. This was due in part to the fact the County financed the first several years of interest payments in order to postpone the inevitable rate increases as long as possible. As those interest payments came due, the County's total debt costs, and the rate increases that would be necessary to meet those costs, would began to increase significantly in escalating amounts each year. The County had no plan on how it would meet these rising future costs.

The monies for the capital improvement program were borrowed through warrants issued by the County and secured by the revenues of the System (the "System Revenues"). The warrants were issued in various series pursuant to a Trust Indenture dated February 1, 1997 (the "Indenture") that was amended through numerous "Supplemental Indentures" as new series of warrants were issued. The Indenture also established a Trustee (the "Indenture Trustee") charged with representing the interests of warrant holders and ensuring the County complied with the terms of the Indenture. The original Indenture Trustee was AmSouth Bank; the current Indenture Trustee is the Bank of New York Mellon.

The Indenture was judicially validated in an order entered by the Jefferson County Circuit Court on August 27, 2001 (the "Validation Order"), in *Jefferson County, Alabama v. The Taxpayers and Citizens of Jefferson County, Alabama*. A copy of the Validation Order is included in the Appendix at A-8. In the Validation Order, the Court held that the warrants were "the valid, binding revenue obligations of the County, its successors and assigns, as provided in the Indenture."

The complete series of warrants issued pursuant to the Indenture are as follows:

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[112] *Id.* at 12-9.
[113] *Id.* at 12-2.

**Table 1 - Summary of Warrants Issued Pursuant to the Indenture**

| Instrument | Date | Series | Original Principal Amount |
|---|---|---|---|
| Indenture | February 1, 1997 | 1997-A Sewer Revenue Refunding Warrants | $211,040,000 |
| | | 1997-B Taxable Sewer Revenue Refunding Warrants | $48,020,000 |
| | | 1997-C Taxable Sewer Revenue Refunding Warrants | $52,880,000 |
| First Supplemental Indenture | March 1, 1997 | 1997-D Sewer Revenue Warrants | $296,395,000 |
| Second Supplemental Indenture | March 1, 1999 | 1999-A Sewer Revenue Capital Improvement Warrants | $952,695,000 |
| Third Supplemental Indenture | March 1, 2001 | 2001-A Sewer Revenue Capital Improvement Warrants | $275,000,000 |
| Fourth Supplemental Indenture | February 1, 2002 | 2002-A Sewer Revenue Capital Improvement Warrants | $110,000,000 |
| Fifth Supplemental Indenture | September 1, 2002 | 2002-B Sewer Revenue Capital Improvement Warrants | $540,000,000 |
| Sixth Supplemental Indenture | October 1, 2002 | 2002-C Sewer Revenue Refunding Warrants | $839,500,000 |
| Seventh Supplemental Indenture | November 1, 2002 | 2002-D Sewer Revenue Capital Improvement Warrants | $475,000,000 |
| Eighth Supplemental Indenture | January 1, 2003 | 2003-A Sewer Revenue Refunding Warrants | $41,820,000 |
| Ninth Supplemental Indenture | April 1, 2003 | 2003-B Sewer Revenue Refunding Warrants | $1,155,765,000 |
| Tenth Supplemental Indenture[114] | August 1, 2003 | 2003-C Sewer Revenue Refunding Warrants | $1,052,025,000 |

The financing transactions were summarized by *The Birmingham News* in a July 10, 2010 table entitled "How Jefferson County's Debt Ballooned" (herein, "News Debt Table"), included in the Appendix to this report at A-9. The various series of warrants (or "parity securities" under the terms of the Indenture) were not identical to one another, either in their intent or structure. Several of the series of warrants were "refunding" warrants issued to refinance previously-issued series of warrants to lower the County's interest costs and avoid significant rate increases.[115] In

[114] There is an Eleventh Supplemental Indenture; this instrument did not involve the issuance of additional warrants but instead altered the terms of the Indenture consistent with certain interest rate swap transactions entered into at that time. The Eleventh Supplemental Indenture also produced additional funds for capital improvements.

[115] The refunding warrants included the Series 2002-C Refunding Warrants, the Series 2003-A Refunding Warrants,

what the federal court later called a "risky attempt"[116] to minimize the required interest payments and further postpone the inevitable rate increases, beginning with the Series 2002-A Sewer Revenue Capital Improvement Warrants, the County began to issue substantial amounts of variable rate demand warrants and auction rate warrants rather than more traditional fixed rate warrants.[117]

The variable rate demand warrants bear interest at fluctuating rates generally determined by market interest rates, and interest payments are due at various times throughout the year. The variable rate demand warrants are subject to optional or mandatory tender by the warrant holders from time to time; when that occurs, a "remarketing agent" selected by the County and acting as its agent attempts to "remarket" the variable rate demand warrants.[118] The County agreed in the Indenture to maintain a liquidity bank or banks as a buyer of last resort in case the remarketing agent was unable to successfully remarket the variable rate demand warrants; the liquidity banks agreed, through Standby Warrant Purchase Agreements secured by the net revenues of the System, to purchase the variable rate demand warrants from the remarketing agent.[119] Once a liquidity bank purchases the variable rate demand warrants, they become "Bank Warrants," subject to higher interest rates than variable rate demand warrants that are not Bank Warrants.[120]

The auction rate warrants bore interest at fluctuating rates set by periodic auctions.[121] The interest rate was set by the lowest interest rate at which all of the warrants were offered for sale by current holders of the warrants. If the auctions failed, the interest rate would be set at the Maximum Auction Rate as defined in the Indenture, as amended.

As of March 2008, the County had approximately $3.223 billion in outstanding sewer warrants. These warrants fell into the following classes:

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the Series 2003-B Refunding Warrants and the Series 2003-C Refunding Warrants.

[116] Federal Action, Memorandum Opinion, Doc. # 100 at 4 (June 12, 2009) (herein, the "Federal Opinion"). The Federal Opinion is discussed in more detail in Section II.G *infra*.

[117] Federal Opinion at 4-5.

[118] Federal Joint Submission at ¶ 67; *see also* Fourth Supplemental Indenture at §2.6(a).

[119] Federal Joint Submission at ¶ 69; *see also* Fourth Supplemental Indenture at § 2.6(e).

[120] Federal Joint Submission at ¶¶ 72, 74.

[121] *Id.* at ¶ 74.

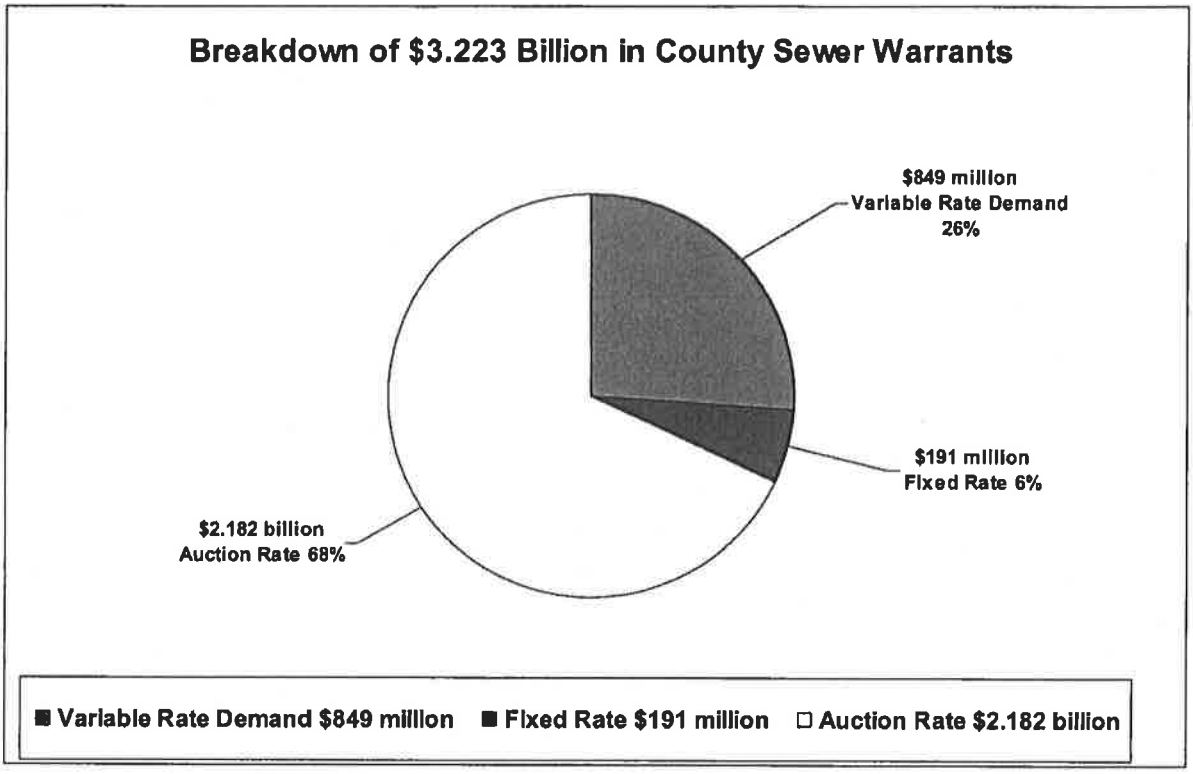


**Figure 2 - Breakdown of $3.223 Billion in County Sewer Warrants**

When issuing the warrants, the County also purchased municipal bond insurance policies to make its warrants more marketable and to minimize its interest rate costs.[122] These policies provided that if the County was unable to make payments of principal and interest required by the Indenture, the bond insurers, Syncora Guarantee (formerly known as XL Capital Assurance, Inc.), Assured Guarantee Municipal Corporation (formerly known as Financial Security Assurance Holdings ("FSA")), and Financial Guaranty Insurance Company ("FGIC"), would make these payments.[123] The Indenture provides generally that, upon payments to warrant holders under their respective policies, the bond insurers would become owners of the warrants (and the right to interest from the warrants) and subrogated to the rights of the warrant holder. As of March 2008, FGIC insured 54% of the outstanding warrants, Syncora insured 35%, and FSA insured 11%.

To achieve a synthetic fixed rate structure, the County also entered into several interest rate swaps from 2001-2004 with several investment banks as a hedge against market interest-rate exposure and to offset its debt service payments. An interest rate "swap," at its most basic definition, is an agreement by which one party (the "Issuer") agrees to exchange interest payments from a fixed interest rate (the "Fixed Position") with another party (the "Swap Counterparty") for the interest payments from a variable interest rate (the "Floating Position"), with the amount of interest paid by both parties being calculated off of a notional, or imaginary,

[122] Federal Opinion at 6.
[123] Federal Joint Submission at ¶¶ 51-60.

principal amount.[124] When interest rates fall below the Fixed Position, the Issuer ends up with a net payment obligation to the Swap Counterparty, which is obligated to pay the lower Floating Position. Conversely, when interest rates rise above the Fixed Position, the Issuer is entitled to a net payment from the Swap Counterparty, which is now obligated to pay the higher Floating Position. In the County's case, it primarily took the "Fixed Position" in the example above, and the total combined notional value of its swaps was approximately $5.5 billion.[125] Its goal in doing so was that, by receiving the variable rate payments from the swap issuer, it was hedging against the potential of increasing interest payments due under the variable rate warrants. As noted below, this plan backfired when market interest rates generally dropped to historically low levels in 2008. All swap agreements have since been terminated.

### D. Criminal Activity.

As is widely known, criminal activity plagued both the financing and construction activities initiated as part of the County's efforts to comply with Consent Decree. That criminal activity has been widely reported, is a matter of public record, and need not be recounted in detail here. Four County Commissioners, six former County employees (including the former head of the ESD), several contractors and firms that did business with ESD, and two local investment bankers associated with the financing of the sewer debt and swap transactions, have been convicted of federal bribery and conspiracy crimes for their actions.[126] The criminal convictions were summarized by *The Birmingham News* in a July 30, 2010 table that is included in the Appendix at A-10.

It is not the Receiver's role to adjudge the guilt or innocence of any of the alleged wrongdoers, or to quantify the cost of any criminal conduct which occurred. Those determinations will ultimately be made in the various lawsuits in which the County and certain creditors are seeking damages for the alleged wrongdoing. Criminal conduct likely increased the cost of the financing activities the County initiated to comply with the Consent Decree. An additional factor which also substantially increased the County's construction costs is the corruption and incompetence present at the County and ESD level. These actions also diminished the effectiveness of the County's efforts to comply with the Consent Decree. The effects of this criminal activity, corruption and incompetence were clearly evident in many of the problems outlined in the BE&K Report (e.g., ESD's irregular bidding procedures, little to no

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[124] For a short, helpful explanation of interest rate swaps, *see* Douglas Skarr, California Debt and Investment Advisory Commission, *The Fundamentals of Interest Rate Swaps* (October 2004), http://www.treasurer.ca.gov/cdiac/reports/rateswap04-12.pdf (last accessed June 5, 2011).

[125] Validation Order at 9; BE&K Report at 12-12.

[126] Federal Opinion at 5-6. In addition, the Securities and Exchange Commission ("SEC") charged J.P. Morgan Securities, Inc. ("JPMorgan"), and two of its former managing directors, Charles LeCroy and Douglas MacFaddin, for their roles in an unlawful payment scheme to win business involving municipal bond offerings and swap agreement transactions with the County. *See* SEC Release No. 2009-232 (Nov. 4, 2009), *available at* http://www.sec.gov/news/press/2009/2009-232.htm. JPMorgan settled the SEC's claims against it by making a payment to the County of $50 million "for the purpose of assisting displaced County employees, residents, and sewer ratepayers," paying a fine of $25 million (which was later distributed to the County), and by cancelling $647 million in claimed swap termination fees. *See* SEC Order *In the Matter of J.P. Morgan Securities Inc.*, SEC Administrative Proceeding File No. 3-13673 (Nov. 4, 2009). The SEC's suit against LeCroy and MacFaddin remains pending in the United States District Court for the Northern District of Alabama.

project supervision or budgeting, the use of only a small group of contractors and engineers, etc.).

### E. System Rate History Since 1997.

The Indenture contains a covenant (the "Rate Covenant")[127] in which the County agreed to, among other things, maintain rates sufficient to pay the indebtedness on the warrants and provide for the payment of the System's operating expenses. The Rate Covenant contains a formula and procedure by which the County agreed to automatic annual increases of sewer rates in order to comply with the Rate Covenant.[128] The County Commission adopted a resolution on February 12, 1997, implementing the Rate Covenant and providing for automatic increases in sewer rates as necessary to comply with the terms of the Indenture. This resolution was in place until it was suspended by the Commission in December 2008.[129]

However, on at least two occasions, the Commission passed resolutions announcing the Commission's decision to implement a rate increase *less* than the rate increase required under the Rate Covenant automatic formula the Commission adopted in 1997. On December 2, 2003, the Commission passed a resolution stating the Rate Covenant formula required a rate increase "in excess of 14%" be implemented effective January 1, 2004, but the Commission had determined instead to implement a 10% rate increase.[130] On December 7, 2004, the Commission passed a similar resolution stating the Rate Covenant formula required a rate increase "in excess of 13%" beginning January 1, 2005, but the Commission had decided to instead implement a 10% rate increase.[131]

From 1997 through the present, the Commission implemented the following annual volumetric rate increases:[132]

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[127] *See* Indenture at § 12.5.
[128] *Id.*
[129] Carns Dep. 17:4-18:23, July 20, 2010; Hulsey Dep., Exh. 40, Feb. 9, 2009.
[130] Resolution dated December 2, 2003, Minute Book 143, pp. 322-23.
[131] Resolution date December 7, 2004, Minute Book 146, pp. 504-05.
[132] Special Masters Report at 38.

**Table 2 - Summary of Rate Increases From 1997 to Present**

| Year | Sewer Use Rate (Ccf) | % increase |
|---|---|---|
| 1997 | $1.78 | N/A |
| 1998 | $1.88 | 5.6 |
| 1999 | $2.20 | 17.0 |
| 2000 | $2.48 | 12.7 |
| 2001 | $3.01 | 21.4 |
| 2002 | $3.53 | 17.3 |
| 2003 | $4.90 | 38.8 |
| 2004 | $5.39 | 10.0 |
| 2005 | $5.93 | 10.0 |
| 2006 | $6.35 | 7.1 |
| 2007 | $6.87 | 8.2 |
| 2008 | $7.40 | 7.7 |
| 2009 | $7.40 | 0 |
| 2010 | $7.40 | 0 |
| 2011 | $7.40 | 0 |

Volumetric sewer rates have not been increased since January 2008, and all other sewer charges have also remained substantially the same since that time. As noted below, this failure to raise rates at all in the last three-plus years – much less in any sort of meaningful manner – has only exacerbated the System's debt problem and made any sort of global solution that much more difficult.[133]

In fact, the County Commission has repeatedly ignored or refused to implement the advice of several experts and consultants – including all of those retained by the County – recommending rate increases for the long term financial stability of the System. These recommended rate increases since 2002, and the County's responses, are summarized in the following table:

[133] *See* discussion beginning at Section IV.A *infra*.

**Table 3 - Recommended Rate Increases and County Response from 2002 to Present**

| Date/Report | Recommendations | County Response |
|---|---|---|
| **2002 Krebs Report** – The Nov. 2, 2002 report of County consultant Paul B. Krebs & Associates ("Krebs") projected that System funding would be adequate *if rates were increased as recommended.* | • 2003: 43% increase to $5.05[134]<br>• 2004: 24% increase to $6.26<br>• 2005: 14.6% increase to $7.18<br>• 2006: 9% increase to $7.83<br>• Total increases for the period: $4.30 or 122% | • 2003: 38.8% increase to $4.90<br>• 2004: 10% increase to $5.39<br>• 2005: 10% increase to $5.93<br>• 2006: 7.1% increase to $6.35<br>• Total increases for the period: $2.82 or 80% |
| **2003 Krebs Report** – The March 31, 2003 Krebs report notified the Commission that, *even with no additional borrowing*, System funding needs would rise approximately 89% from 2002-2008, and the System was in dire need of additional funds. | While the report did not recommend specific additional rate increases, it did acknowledge that rate revenue would have to be the principal source of funding. The report recommended the County implement several rate structure changes as a way to increase rate revenues, such as eliminating the 15% residential discount, and updating the impact fee structure. | The County **did not implement any** of the rate structure changes recommended in the report. |
| **2003 BE&K Report**[135] – In late 2002, BE&K estimated it would cost an additional $611 million (over and above existing debt) to complete the improvement program. | BE&K recommended that the County increase rates by 12.5% yearly from 2004 to 2011. | The County **funded less than half** of what was recommended. Rates were increased by 10% in 2004 and 2005, 7.1% in 2006, 8.2% in 2007 and 7.7% in 2008. In late 2008, the Commission suspended further rate increases, and rates have not been increased since that time. |
| **2007 Red Oak Consulting Report** – Red Oak, retained by the County, recommended that it choose one of five different scenarios for annual rate increases from 2008 to 2010. | The scenario that called for the lowest level of increase required an increase in 2008 of 8%, then 6.3% in 2009, and 5.5% in 2010. The scenario that called for the highest level of rate increases required increases from 2008 through 2010 of 50.4%, 16.4%, and 6.7%, respectively. | **No increase.** The County suspended all rate increases in 2008. |
| **2008 Draft Raftelis Report** – In June 2008, Raftelis Consulting was hired by the County to examine the reasonableness of the County's then-existing rates. | Although Raftelis was not asked to make rate increase recommendations, the draft report stated that it would be imprudent for the County not to consider rate increases in the near term. The firm sent a letter to the County Commission recommending the County at least increase sewer rates at the level equal to the Consumer Price Index, (2.22%), to reflect a cost of living adjustment. | **No increase**. The County did not increase rates at all after 2008. |

[134] These percentage and dollar increases in this chart refer to the base volumetric charge per Ccf for residential customers with the standard 5/8 inch meter.
[135] The BE&K Report is discussed in detail *supra* at Section II.C.1.

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|---|---|---|
| **Raftelis 2010 Report** – In 2009, the County hired Raftelis Consulting to perform a cost of service study and make recommendations for future rate increases to meet System funding needs. | Raftelis recommended the County implement an immediate 6.76% volumetric rate increase, and increase the minimum charge from $2 to $13. | **No increase.** The County did not increase rates at all after 2008. |

The County's hostility to rate increases has a long and consistent history. Included in the Appendix at A-11 is a table summarizing the County's responses to rate recommendations from 1901 to the present. As the table above demonstrates, since 2002 the County has received advice from a host of experts and consultants, and that advice was consistent – the County had to raise its sewer rates to preserve the long term financial viability of the System. The County's response to that advice was also consistent – it either refused to raise rates at all, or failed to raise rates to the full extent recommended.

The 2003 Krebs Report spelled out exactly the issues facing the System and the need for immediate rate increases to meet the drastic future increases in debt costs that would occur due to the back-loaded structure of the County's financing. The consequences of the County's buy-now, pay-later strategy were beginning to kick in. Krebs predicted that by 2006, the System's capital needs would increase by 70 percent, and that the County's system-related debt could total almost $3.2 billion. Krebs warned the County – a full five years before its default – that:

> Regardless of the source from which the needed revenues must ultimately arise, **they will have to be generated**, and the plan for generating them cannot be popular with any of those who will be affected by an increase in taxes or user fees. **Nevertheless, when the alternative of obtaining revenues though a plan over which the Commission has some control is compared with the action of a receiver should the system go into default, there can be little question as to which course of action would be preferable. There can also be no debate about the urgency for action**; this is not a matter on which action can be long deferred without serious consequences.[136]

Yet the County ignored Krebs's advice (and, in fact, as U.S. District Judge David Proctor found, suppressed dissemination of the 2003 Krebs Report)[137] – as it generally ignored the advice of every professional that recommended increases in sewer rates. The County took this path despite the fact that it had already borrowed billions of dollars secured only by the System – and then proceeded to borrow more. Stated another way, the County borrowed billions of dollars, based on the promise that it would increase rates to required levels, and then refused to take the legal and logical actions required to repay those monies. As Judge Proctor noted after the County suspended operation of the Rate Covenant, "[i]n the face of consistent input from rate experts that net sewer revenues were inadequate to operate and pay its debt obligations, the County went in the *opposite* direction [of increasing System revenues]."[138]

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[136] Consulting Letter Preceding the 2003 Krebs Report at 4 (emphasis added).
[137] Federal Opinion at 5, 15-16.
[138] *Id.* at 18 (emphasis in original).

In 2004, there were significant changes to the makeup of the County Commission and ESD management. As a result of these changes, capital expenditures were greatly reduced as the County resisted any further borrowing.

### F. The Crash of the System's Finances and the County's Response.

The County's debt structure began to unravel quickly in 2008 after some of its bond insurers' credit ratings were downgraded. This caused the County's interest costs to soar as the market for the warrants disappeared and auctions on its auction rate warrants failed.[139] At the same time, the County's hedge – the billions in swap agreements – backfired when the interest rates the Swap Counterparties were required to pay dropped precipitously, sending the County's swap obligations soaring.[140] On February 27, 2008, the County's credit rating was downgraded five levels to the lowest investment grade, triggering a requirement that the County post $184 million in collateral to its Swap Counterparties, money the County had no ability to post. The next day, the County issued a notice that it could "provide no assurance that net revenues from the sewer system will be sufficient to permit the county to meet the interest rate and amortization requirements of the liquidity facilities." On February 29, 2008, the rating of the sewer warrants was cut to junk status.[141]

In April 2008, the County was unable to make certain required principal payments due under certain of the warrants. The County, some of the bond insurers, the Liquidity Banks, and the Swap Counterparties then entered a series of forbearance agreements throughout 2008 under which these creditors agreed to forbear from exercising remedies against the County while it sought a solution to its financial problems. During this time, the County made partial payments to the Liquidity Banks. As late as July 31, 2008, the County approved a resolution declaring that its "synthetic fixed rate structure" had served the County "reasonably well."[142]

### G. Resulting Litigation and Appointment of Receiver.

Following the County's defaults and expiration of the forbearance agreements, and the County's refusal to deposit the System revenues with the Indenture Trustee, the Trustee, Syncora, and FGIC filed suit against the County and the County Commissioners on September 16, 2008, in the United States District Court for the Northern District of Alabama (the "Federal Action"). The Indenture Trustee sought remedies for the County's breaches of the Indenture, including appointment of a receiver.

On November 25, 2008, the District Court appointed John S. Young, Jr. (at the suggestion of the County)[143] and John Ames (at the suggestion of the Trustee, Syncora, and

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[139] Martin Z. Braud, *Ala. County's Debt Cut to Junk on Credit Squeeze*, BLOOMBERG, Feb. 29, 2008.

[140] Interest rates dropped precipitously in 2008 as the markets began to adjust to the financial crisis enveloping the country. For example, the 1-month LIBOR Rate dropped from 5.02% in December 2007 to 2.51% in May 2008. *See* http://www.wsjprimerate.us/libor/libor_rates_history.htm.

[141] *See* Braud, *supra* note 139. The downgrade of the warrants also significantly increased the County's interest obligations on the County's auction rate warrants. *See* Ninth Supplemental Indenture at §§ 1.1 (pp. 3-4, 12), 3.3. The Ninth Supplemental Indenture, which authorized the issuance of $1.155 billion in refunding warrants, was entered after the County received the 2003 Krebs Report.

[142] Resolution dated July 31, 2008, Minute Book 156, pp. 309-10.

[143] Federal Opinion at 18 n.14.

FGIC) as special masters (the "Special Masters") and directed them to provide an evaluation of the legal, economic, business, infrastructure, and capital improvement issues facing the System.[144] The Special Masters filed their report on February 10, 2009 making detailed findings about and recommendations for improving the System. A copy of the Special Masters Report is included in the Appendix at A-12.

On June 12, 2009, the District Court issued an opinion finding that it was required to abstain from the central issue in the case – appointment of a receiver over the System with authority to set sewer rates.[145] A copy of the court's opinion (the "Federal Opinion") is included in the Appendix at A-13. While abstaining from appointing a receiver, Judge Proctor made detailed findings of fact concluding that grounds existed for appointment of a receiver. Among other things, he found that:

- The County defaulted under the terms of the Indenture by, among other things, failing to maintain rates sufficient to pay its debt, failing to provide required notices, and failing to make payments into various funds as required by the Indenture.[146]

- The County refused to listen to or heed anyone, including its own consultants, who suggested raising sewer rates and the County Commissioner at the time in charge of the System was "largely disengaged [from] any efforts to raise revenue."[147]

- ESD was providing services to customers that were not billed and did not pay (in some cases for up to five or six years) – when it discovered this, the County only sought to collect payment for one year of unbilled service;[148]

- The then-County Commissioners "at best, paid lip service" to the recommendations of the Special Masters and were generally disengaged from the sewer debt crisis.[149]

- The County suppressed dissemination of the 2003 Krebs Report, which had concluded that the County required additional revenue to meet its then-existing debt obligations – and then borrowed more money.[150]

- The County was aware at least as early as 2003 (if not before) that its net sewer revenues were insufficient to service its existing debt, yet did not reveal this information to potential investors.[151]

In light of the Court's abstention from appointing a receiver, on July 6, 2009, the District Court granted the plaintiffs leave to seek relief in Alabama state court.[152]

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[144] Order Appointing Special Masters, Federal Action, Doc. # 41 (Nov. 25, 2008).
[145] Federal Opinion at 55.
[146] *Id.* at 13.
[147] *Id.* at 17-19.
[148] *Id.* at 22.
[149] *Id.* at 18-19.
[150] *Id.* at 4-5, 15-16.
[151] *Id.* at 15-16.
[152] Order, Federal Action, Doc. # 102 (July 6, 2009).

On August 3, 2009, the Indenture Trustee filed suit against the County, again seeking appointment of a receiver, in the Circuit Court of Jefferson County. Shortly before the case was due to go to trial, the Court granted the Indenture Trustee's Motion for Partial Summary Judgment and appointed the Receiver on September 22, 2010 through entry of the Receiver Order.

## III. Overview of Actions Taken by Receiver Since Appointment.

Upon appointment, the Receiver's first step was to formulate a business plan to meet the long term goal of having a viable, sustainable, efficient utility serving the needs of the public. According to ESD staff, the 2011 business plan produced under the Receiver's leadership and direction is the first comprehensive business plan ever prepared for the System. Before examining the need for any rate increases, the Receiver's goal was to get the System's internal house in order by identifying where greater efficiencies could be achieved or where improved practices were necessary and to implement plans to achieve those efficiencies and put those practices in place.

The Receiver also began to exercise managerial control over the System. After more than two years of litigation over the appointment of a receiver, criminal prosecutions of County Commissioners, ESD officials, and others, and constant public scrutiny, one of the Receiver's first actions was to meet with employees of the ESD and to assure them that his first priority was to work with them to provide the experience, resources and tools necessary to operate the System as a successful wastewater utility. From an operational standpoint, the Receiver has attempted to instill a new sense of pride within ESD with the goal of operating as a professional utility dedicated to providing high quality, reliable customer service and protection of the environment.

While the Receiver reviewed a significant amount of information in the preparation of the Special Masters Report, his role as one of the Special Masters was limited to investigation and making recommendations to Magistrate Judge John Ott with respect to disputes among the parties in the federal action concerning the operation of the System. As acknowledged in the Special Masters Report, "[t]he specific recommendations were developed based on limited due diligence of [ESD's] operations, input from the County finance department, review of selected consultant's reports issued over the past seven years, and input from the parties involved in the current litigation."[153]

The Receiver's responsibilities far exceed the limited Special Master role. In effect, ESD is similar to a distressed corporation that has retained a new CEO to take over, evaluate all components of the company's operations, and implement changes to chart a new, efficient, and successful course for the business. In doing so, the Receiver met with ESD employees and County officials to obtain a full understanding of the current state of affairs of the operation of the System, including actions taken since the Special Masters Report. Prior to the Receiver's appointment, ESD management had made progress towards implementing some of the recommendations of the Special Masters Report that were within ESD's control, and that progress has continued under the Receiver's direction.

[153] Special Masters Report at 1.

Shortly after appointment, the Receiver began the process of conducting a comprehensive review of System operations to identify areas where additional actions were needed for proper financial, administrative, and operational performance as well as where additional efficiencies could be achieved, and to formulate plans to implement changes and other best practices. This review and planning process was generally divided into two main areas: (1) operations and maintenance; and (2) capital investment. The following is a summary of the significant review and planning activities within those two areas.

### A. Operations and Maintenance Budgeting and Review Process.

The Receiver implemented a review of System operations and maintenance ("O&M") activities to identify areas where operations were not being performed in accordance with regulations or industry best practices and to assess opportunities for savings to be implemented through improved operating and management efficiencies. The Receiver also directed and oversaw the preparation of a budget for future O&M costs over the next five years. O&M costs include all costs necessary to meet the System's service obligations. Major O&M cost items include salaries and benefits; materials cost; utilities expense; and contractual service costs. A summary of the O&M plan created as a result of this review process is included in the Appendix at A-14.

Due in part to the range of operational efficiencies implemented since the February 2009 Special Masters Report, total System O&M costs have been reduced and are projected to decrease further in the near term, from approximately $62.9 million in 2011, to approximately $58.4 million by 2013.[154] From 2013 forward, total O&M costs are projected to increase each year with inflation, nearly returning to the 2011 level of $62.9 million by 2016.[155] As a distressed utility, a number of necessary O&M best practices have not historically been performed within the System. These necessary practices are identified in the System's O&M plans with associated costs. These added costs have and will continue to offset some of the savings which are being achieved through management and operating efficiencies.

The following sections describe various components of the O&M review and planning process.

#### *1. Personnel Plan.*

In November 2010 the Receiver initiated a four-month review of System operations at the organization, division, and individual position levels to assess the System's core functions and determine the personnel needed to achieve those functions. This review primarily focused on treatment operations, the largest division from a staffing perspective. As part of this process, American Water was engaged to assess operations in the System's wastewater treatment plants and plant maintenance divisions, with particular focus on the Village Creek and Valley Creek wastewater treatment plants. American Water is the largest investor-owned water/wastewater utility in North America serving approximately 15 million people. American Water owns and operates approximately $11 billion in assets and operates over 1100 treatment plants. A copy of

[154] B&V Cost Allocation Study at 8, Table 3-1. The B&V Cost Allocation Study is discussed in more detail in Section VI *infra*.
[155] *Id.*